

incorrect. This objection is respectfully traversed, as the algorithm referred to goes by either “Baum-Welsh or “Baum-Welch”. Accordingly, withdrawal of this objection is respectfully requested.

4. Claims 6-9 stand rejected under 35 USC 103(a) as being unpatentable over U.S. Patent 5,832,063 to Vysotsky *et al.* (Vysotsky) in view of U.S. Patent 6,343,267 to Kuhn *et al.* (Kuhn). This rejection is respectfully traversed for the following reasons.

Claim 6 is representative of the claims at issue in this rejection and is directed to “a method of automatically verifying a speaker as matching a claimed identity wherein enrollment speech data of a known speaker is compared with test data.” The method requires “performing a feature extraction process on the enrollment and test speech data to convert variable input to fixed-length feature vectors that are independent of the order of words spoken or the speaking rate.”

The Office Action alleges that Vysotsky discloses all the features of claim 6 except converting variable input to fixed-length feature vectors that are independent of the order of words spoken or the speaking rate, which is taught by Kuhn in column 6 lines 62-64, column 7, lines 23-26, column 9, lines 4-13 and 41-51. However, Kuhn does not appear to teach or suggest the claimed fixed-length feature vectors either as Kuhn merely describes a supervector that represents an adapted model that is fully populated with values. Kuhn does not teach or suggest that this supervector is independent of the order of words spoken or of the speaking rate.

Furthermore, there is no motivation for modifying Vysotsky with Kuhn as proposed by the Office Action. The Office Action appears to rely on the fact that because Vysotsky and Kuhn are analogous art, their teachings may be combined. However, the mere fact that Vysotsky and Kuhn may be from the same field of endeavor and/ or analogous art does not provide motivation for combining their teachings. To establish a *prima facie* case of obviousness, there must be some suggestion or motivation to combine teachings. The Office Action does not provide any motivation for combining Vysotsky and Kuhn other than “to obtain the invention as specified in Claim 6.” Accordingly, claim 6 is patentable over Vysotsky in view of Kuhn.

Dependent claims 7-9 are patentable over Vysotsky in view of Kuhn for at least the reasons set forth with respect to claim 6, from which they directly or indirectly depend.

In view of the foregoing, withdrawal of this rejection is respectfully requested.

5. Claims 10-17 stand rejected under 35 USC 103(a) as being unpatentable over Vysotsky. This rejection is respectfully traversed for the following reasons.

Claim 10 is representative of the claims at issue in this rejection and is directed to “a method for verifying a speaker’s voice by subjecting the speaker to an enrollment test for verification based upon the premise that speech utterances are a fixed set of words arranged in a randomized order.” The method requires the speaker to enroll by “uttering from a vocabulary a predetermined number of combined words each word indicative of a number between one to nine and at least one bridging word “ti”, adapting the parameters of a set of word models for said vocabulary words based upon input speech data to provide adapted word models, and concatenating said adapted word models to create a feature vector indicative of the average sound spectrum.”

The Office Action alleges that Vysotsky discloses all the features of claim 10 except concatenating the adapted word models to create a feature vector, which the Office Action essentially takes official notice of concluding that “it would have been obvious...to concatenate the mean vectors of the adapted HMMs, as is well known in the art...” The Office Action also alleges that it would have been obvious to require the speaker to enroll by uttering a number between one to nine and at least one bridging word “ti”, as required in claim 10, even though such a feature is not taught or suggested by any reference cited of record.

With regard to these features absent in Vysotsky, it is respectfully submitted that official notice unsupported by documentary evidence should only be taken where the facts asserted to be well-known are capable of instant and unquestionable demonstration as to defy dispute. See *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970).

It is the Applicant’s position that the “concatenating” and “speaker enrolling” features are not obvious for the reasons set forth in the Office Action. Therefore, it is respectfully requested that the Examiner provide a reference which supports this assertion in the next Office Action, if this rejection is maintained.

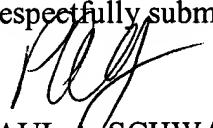
Dependent claims 11-17 are patentable over Vysotsky for at least the reasons set forth with respect to claim 10, from which they directly or indirectly depend.

In view of the foregoing, withdrawal of this rejection is respectfully requested.

6. Favorable reconsideration of this application is respectfully requested as it is believed that all outstanding issues have been addressed herein and, further, that remaining claims 6-17 are in condition for allowance, early notification of which is earnestly solicited. Should there be any questions or matters whose resolution may be advanced by a telephone call, the examiner is cordially invited to contact applicants' undersigned attorney at his number listed below.

7. No fees are due as a result of this communication. The Commissioner is hereby authorized to charge payment of any additional filing fees required under 37 CFR 1.16 and any patent application processing fees under 37 CFR 1.17, which are associated with this communication, or credit any overpayment to Deposit Account No. 50-2061.

Respectfully submitted,

  
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